

What is claimed is:

1 1. A substrate processing device, comprising:
2 a plurality of vacuum process chambers, each of which administers a
3 prescribed process to a substrate therein;
4 a through-chamber which constitutes a vacuum chamber, the plurality of
5 vacuum process chambers are hermetically-connected to a perimeter of the
6 through-chamber;
7 a carry system which carries a substrate in sequence, via the through-
8 chamber, to the plurality of vacuum process chambers, the carry system comprises
9 a substrate holder which holds the substrate upright in such a way that a plate
10 surface thereof forms an angle to the horizontal of between 45° and 90°; and
11 a horizontal movement mechanism which moves the substrate holder via
12 the through-chamber to the plurality of vacuum process chambers.

1 2. The substrate processing device described in Claim 1, wherein the
2 through-chamber constitutes a direction-altering chamber comprising a direction-
3 altering mechanism which alters the direction of movement of the substrate holder
4 using the horizontal movement mechanism, wherein the direction-altering
5 mechanism alters the direction of movement by rotating the substrate holder and
6 the horizontal movement mechanism about a vertical rotating axis.

1 3. The substrate processing device described in Claim 2, wherein the
2 direction-altering mechanism rotates the substrate holder and the horizontal
3 movement mechanism about a rotating axis coincident with a center axis of the
4 direction-altering chamber.

1 4. The substrate processing device described in Claim 1, wherein the
2 substrate holder holds two substrates simultaneously.

1 5. The substrate processing device described in Claim 4, wherein the
2 substrate holder holds the substrates upright in such a way that the plate surface
3 thereof forms an angle to the horizontal of between 60° and 90°.

1 ~~6.~~ A substrate processing device, comprising:
2 a plurality of through-chambers, each of which includes a hermetically-
3 connected vacuum chamber;
4 a plurality of processing chambers that are hermetically-connected to the
5 plurality of through-chambers;
6 a carry system that carries a substrate in sequence to the processing
7 chambers, the carry system comprises a substrate holder which holds the substrate
8 upright in such a way that a plate surface thereof forms an angle to the horizontal
9 of between 45° and 90°; and
10 a horizontal movement mechanism which moves the substrate holder to
11 each of the processing chambers via at least a plurality of the through-chambers.

1 7. The substrate processing device described in Claim 6, wherein the
2 through-chambers each constitutes a direction-altering chamber comprising a
3 direction-altering mechanism which alters the direction of movement of the
4 substrate holder using the horizontal movement mechanism, wherein the direction-
5 altering mechanism alters the direction of movement by rotating the substrate
6 holder and the horizontal movement mechanism about a vertical rotating axis.

1 8. The substrate processing device described in Claim 7, wherein the
2 direction-altering mechanism rotates the substrate holder and the horizontal
3 movement mechanism about a rotating axis coincident with a center axis of the
4 direction-altering chamber.

1 9. The substrate processing device described in Claim 6, wherein the
2 substrate holder holds two substrates simultaneously.

1 10. The substrate processing device described in Claim 9, wherein the
2 substrate holder holds the substrates upright in such a way that the plate surface
3 thereof forms an angle to the horizontal of between 60° and 90°.

1 ~~11.~~ A through-chamber having a perimeter to which a plurality of
2 vacuum processing chambers are hermetically-connected, the through chamber
3 comprising:
4 a vacuum chamber;
5 a horizontal movement mechanism including a substrate holder for holding
6 a substrate, the horizontal movement mechanism horizontally moves the substrate
7 holder through the vacuum chamber, and the substrate holder holds the
8 abovementioned substrate upright in such a way that the plate surface thereof
9 forms a holding angle to the horizontal of between 45° and 90°, and
10 a direction-altering mechanism which alters the direction of movement of
11 the substrate holder by rotating the substrate holder and horizontal movement
12 mechanism about a vertical rotating axis.

- 1 12. The through-chamber as described in Claim 11, wherein the
- 2 direction-altering mechanism rotates the substrate holder and the horizontal
- 3 movement mechanism about a rotating axis coincident with a center axis of the
- 4 through-chamber.

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